

ABSTRACT OF THE DISCLOSURE

The invention provides a method for making a thin-film semiconductor device for accurately controlling the LDD length regardless of the structure or the LDD length of a gate electrode. First, on a substrate, a semiconductor film with a predetermined pattern, a gate-insulating film, and a tapered gate electrode can be disposed in sequence. Then a low concentration of impurity can be implanted into the semiconductor film through the gate electrode functioning as a mask. Then, after a layered insulating film composed of at least two different insulating films is disposed on the gate electrode on the transmissive substrate, the entire surface is etched to form a layered insulating film with a predetermined pattern so that at least one layer of the insulating film has a width greater than the gate electrode and smaller than the semiconductor film. Subsequently, a high concentration of impurity can be implanted into the semiconductor film through the layered insulating film functioning as a mask.